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10/622,883	07/18/2003	Juha Salokannel	4208-4136	2755
27123	7590	03/17/2008	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			PAN, YUWEN	
			ART UNIT	PAPER NUMBER
			2618	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/622,883	Applicant(s) SALOKANNEL ET AL.	
	Examiner YUWEN PAN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-28, 31-35 and 38-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-28, 31-35, 38-44, 46-48 and 50-53 is/are rejected.
- 7) ☒ Claim(s) 45 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 1/29/2008 have been fully considered but they are not persuasive. The applicant argues that the prior art doesn't teach the limitation "wherein the enabled ones of the plurality of communication modules indicated by the first parameter are operable in sequence according to the priority order indicated by the second parameter and the received host command". The examiner respectfully disagrees. Over all, the prior art of record, Ollis reference, teaches a system in which comprises a source wireless device that is capable of communicate with a number of different wireless protocols devices, such as Bluetooth, IEEE 802.11s over a wireless network. The source device (see figure 2 and item 100) would be able to detect the existing of other devices (201, 202 and 204) and the corresponding wireless protocols (see column 6 and lines 24-31, column 7 and lines 32-42). Thus, the detected information would be the first parameter in which indicates the capability of one particular device. For example, device (204) might have wireless protocols, Bluetooth and IEEE 802.11(g) ("Wi-Fi"). One of ordinary skill in the art knows that simultaneous operating the Bluetooth and IEEE 802.11 wireless protocols would cause damage to the Bluetooth transceiver and the IEEE 802.11 standard covers wider range than the Bluetooth. Therefore, it would have been obvious to combine the teaching of Vaisanen reference in which during the selection of wireless protocol, the WLAN radio would typically be the preferred choice (priority over Bluetooth). Based on foregoing reasons, the previous rejections stand.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 9-12, 18, 19, 21-25, 31-34, 38- 40, 41-43, 46, 47, 48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollis et al (US006999721B2) in view of Awater et al (US007046649B2) and in further view of Vaisanen et al (US006560443B1).

Per claim 1, Ollis discloses a system for integrating a plurality of short-range communication protocols, comprising: a unified object transfer mechanism for enabling a enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols (see column 3 and lines 45-63 and figure 1), a direct interface between the user and the multi-mode device and the device itself keeping a list of different wireless protocol link list (see figure 3-6, corresponding columns and lines number), a direct interface between the user and the multi mode device and the device itself keeping a list of different wireless protocol link list in which a host such as application layer for user to select and determine who to connect, the device would execute commend from the user and establish connection according to user's selection which indicate who to be connect first (see figure 3-6, column 7 and lines 14-column 8 and lines 2). For the plurality of communication modules shares one RF transceiver.

The examiner believes that Ollis should have such features since there is only one antenna shown in figure 1. For the sake of the argument, the examiner would like to introduce

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Awater reference. Awater teaches that a plurality of communication modules shares one RF transceiver (see figure 2). It is well known in the art to share one RF transceiver when there is more than one RF mode in a portable device. Such implementation is obvious to one ordinary skill in the art to maintain or reduce to size of the portable device (see abstract).

Combination of Ollis and Awater doesn't expressly teach that a priority order for send the host command is part of signal protocol. Vaisanen teaches that when both Bluetooth and WLAN enabled, the priority order of the second parameter may be WLAN first then Bluetooth (see column 5 and lines 17-26, indicated that WLAN is preferred). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Sainton with the combination of Ollis and Awater such that it would prevent damage to the wireless modules that share the same frequency spectrum.

Same arguments apply, *mutatis mutandis*, to independent claims 10, 20, 23, and 32.

Pre claims 2 and 3, Ollis further teaches that the plurality of short-range communication protocols operation in same frequency area (see column 1 and lines 40-50, at least between Bluetooth and IEEE 892.11b standard in which utilize ISM band).

Same arguments apply, *mutatis mutandis*, to claims 11, 12, 24, 25, 33 and 34.

Pre claim 9, Ollis further teaches that at least one signaling protocol for enabling the enhanced host controller to communication with at least one of the plurality of communication modules employing at least one of the plurality of short range communication protocols (see figure 3).

Same arguments apply, *mutatis mutandis*, to claims 19, and 31.

Per claim 18, Ollis further teaches that the device is one of a cellular phone laptop computer or a PDA (see figure 1).

Per claim 21 and 22, Ollis further teaches a direct interface between the user and the multi mode device and the device itself keeping a list of different wireless protocol link list (see figure 3-6, corresponding columns and lines number).

Per claim 38, Ollis further teaches that the plurality of communication modules comprises at least three substantially concurrently operating communication modules (see figure 2 and item 212-214, column 7, lines 42-45).

Same arguments apply, *mutatis mutandis*, to claim 40 and 42.

Per claim 39, Ollis further teaches that an order of the enabled communication modules is based on the user selection of whom he/she is going to communicate with (see figure 7 and column 6 and lines 59-column 8 and lines 2).

Per claims 41 and 43, Vaisanen further teaches that priority indicated by the second parameter provides an order of operation for the enabled communication modules (see column 5 and lines 17-26, indicated that WLAN is preferred).

Per claim 44, Ollis further teaches that the host command is received from a Bluetooth host (see figure 2 and item 204).

Per claim 46, Vaisanen further teaches that an enhanced host controller, wherein the enhanced host controller is configured to modify the host command to one or more commands suitable for use by one or more of the communication modules indicated by the first parameter based on the priority order indicated by the second parameter (see figure 1 and item 14, figure 3B, column 8 and lines 20-37, the selection of wireless modules between WLAN and Bluetooth are based on the availability and preferable choice).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 9-12, 18, 19, 21-25, 31-34, 38- 40, 41-43, 46, 47, 48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollis et al (US006999721B2) in view of Awater et al (US007046649B2) and in further view of Vaisanen et al (US006560443B1).

Per claim 1, Ollis discloses a system for integrating a plurality of short-range communication protocols, comprising: a unified object transfer mechanism for enabling a enhanced host controller to share use of an RF transceiver between a plurality of communication modules using a plurality of short-range communications protocols (see column 3 and lines 45-63 and figure 1), a direct interface between the user and the multi-mode device and the device

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itself keeping a list of different wireless protocol link list (see figure 3-6, corresponding columns and lines number), a direct interface between the user and the multi mode device and the device itself keeping a list of different wireless protocol link list in which a host such as application layer for user to select and determine who to connect, the device would execute command from the user and establish connection according to user's selection which indicate who to be connect first (see figure 3-6, column 7 and lines 14-column 8 and lines 2). For the plurality of communication modules shares one RF transceiver.

The examiner believes that Ollis should have such features since there is only one antenna shown in figure 1. For the sake of the argument, the examiner would like to introduce Awater reference. Awater teaches that a plurality of communication modules shares one RF transceiver (see figure 2). It is well known in the art to share one RF transceiver when there is more than one RF mode in a portable device. Such implementation is obvious to one ordinary skill in the art to maintain or reduce to size of the portable device (see abstract).

Combination of Ollis and Awater doesn't expressly teach that a priority order for send the host command is part of signal protocol. Vaisanen teaches that when both Bluetooth and WLAN enabled, the priority order of the second parameter may be WLAN first then Bluetooth (see column 5 and lines 17-26, indicated that WLAN is preferred). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Sainton with the combination of Ollis and Awater such that it would prevent damage to the wireless modules that share the same frequency spectrum.

Same arguments apply, mutatis mutandis, to independent claims 10, 20, 23, and 32.

Pre claims 2 and 3, Ollis further teaches that the plurality of short-range communication protocols operation in same frequency area (see column 1 and lines 40-50, at least between Bluetooth and IEEE 892.11b standard in which utilize ISM band).

Same arguments apply, *mutatis mutandis*, to claims 11, 12, 24, 25, 33 and 34.

Pre claim 9, Ollis further teaches that at least one signaling protocol for enabling the enhanced host controller to communication with at least one of the plurality of communication modules employing at least one of the plurality of short range communication protocols (see figure 3).

Same arguments apply, *mutatis mutandis*, to claims 19, and 31.

Per claim 18, Ollis further teaches that the device is one of a cellular phone laptop computer or a PDA (see figure 1).

Per claim 21 and 22, Ollis further teaches a direct interface between the user and the multi mode device and the device itself keeping a list of different wireless protocol link list (see figure 3-6, corresponding columns and lines number).

Per claim 38, Ollis further teaches that the plurality of communication modules comprises at least three substantially concurrently operating communication modules (see figure 2 and item 212-214, column 7, lines 42-45).

Same arguments apply, *mutatis mutandis*, to claim 40 and 42.

Per claim 39, Ollis further teaches that an order of the enabled communication modules is based on the user selection of whom he/she is going to communicate with (see figure 7 and column 6 and lines 59-column 8 and lines 2).

Per claims 41 and 43, Vaisanen further teaches that priority indicated by the second parameter provides an order of operation for the enabled communication modules (see column 5 and lines 17-26, indicated that WLAN is preferred).

Per claim 44, Ollis further teaches that the host command is received from a Bluetooth host (see figure 2 and item 204).

Per claim 46, Vaisanen further teaches that an enhanced host controller, wherein the enhanced host controller is configured to modify the host command to one or more commands suitable for use by one or more of the communication modules indicated by the first parameter based on the priority order indicated by the second parameter (see figure 1 and item 14, figure 3B, column 8 and lines 20-37, the selection of wireless modules between WLAN and Bluetooth are based on the availability and preferable choice).

Same arguments apply, *mutatis mutandis*, to claims 47-53.

4. Claims 4-6, 13-17, 26-28, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollis et al (US006999721B2), Awater et al (US007046649B2) and Vaisanen et al (US006560443B1) in view of applicant admitted prior art (hereinafter, APA).

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Per claim 4-6, Ollis discloses an analogous art as recited in claims 1, 10, 20, 23 and 30. Ollis doesn't teach the plurality of short-range communication protocols including LEE communication protocol and RFID communication protocol. APA discloses the LEE allows Bluetooth devices to communicate with other devices with other devices that are developed for low-cost and low-power communications and various RFID tags have been developed to be compatible with Bluetooth that operates in the 2.4 GHz radio band (see page 2). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of APA with Ollis's device such that it is easy for user to operate such multi wireless mode device without knowing all the short-range protocols.

Same arguments apply, *mutatis mutandis*, to claims 13-17, 26-28, and 35.

Per claim 54 and 55, Ollis further teaches that user is able to select a wireless device with a corresponding wireless protocols based on a set of rules to make a determination (see column 3 and lines 55-63, column 7 and lines 39-42). Ollis does not teach the one of the rule would be the speed. One of ordinary skill in the art knows that WLAN (IEEE 802.11 standard) has higher data rate and power range than the Bluetooth. It would have been obvious to one of ordinary skill in the art to select a wireless protocol among a plurality of wireless protocols based on the data rate speed.

Same arguments apply, *mutatis mutandis*, to claims 56-63.

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5. Claims 4-6, 13-17, 26-28, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollis et al (US006999721B2), Awater et al (US007046649B2) and Vaisanen et al (US006560443B1) in view of applicant admitted prior art (hereinafter, APA).

Per claim 4-6, Ollis discloses an analogous art as recited in claims 1, 10, 20, 23 and 30. Ollis doesn't teach the plurality of short-range communication protocols including LEE communication protocol and RFID communication protocol. APA discloses the LEE allows Bluetooth devices to communicate with other devices with other devices that are developed for low-cost and low-power communications and various RFID tags have been developed to be compatible with Bluetooth that operates in the 2.4 GHz radio band (see page 2). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of APA with Ollis's device such that it is easy for user to operate such multi wireless mode device without knowing all the short-range protocols.

Same arguments apply, mutatis mutandis, to claims 13-17, 26-28, and 35.

Allowable Subject Matter

6. Claims 45, 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Yuwen Pan/
Primary Examiner, Art Unit 2618
March 5, 2008